

Application No. 09/848,280
Reply to Office Action of August 26, 2003

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-3 (canceled)

Claim 4 (currently amended): A method of producing reduced iron pellets comprising:

pelletizing a mixture of iron oxide powder, a reducing material and a binder into raw material pellets;

reducing the raw material pellets in a rotary bed-type direct reducing furnace to obtain reduced iron pellets; [[and]]

discharging the reduced iron pellets from the rotary bed-type direct reducing furnace at a temperature ranging between 1100 and 1200°C;

transferring the reduced iron pellets to a heat retaining and rolling portion insulated by heat insulating material of a rotary cylinder; and

rolling sintering the reduced iron pellets by rolling in [[a]] the heat retaining and rolling portion of [[a]] the rotary cylinder at a temperature ranging between 800 to 1200°C sufficiently such that the reduced iron pellets undergo sintering.

Claim 5 (currently amended) A method of producing reduced iron pellets according to claim 4, wherein said rolling step sintering comprises rolling of the reduced iron pellets for more than 3 minutes and less than 20 minutes.

Claim 6 (withdrawn): A production facility for producing reduced iron pellets comprises:

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a reducing furnace for obtaining the reduced iron pellets by heating and reducing the raw material pellets composed of the iron oxide powder and the carbonaceous material powder;

a heat retaining and rolling portion for executing rolling the heated reduced iron pellets after receiving them from the reducing furnace, while retaining the heat of the pellets; and

a cooler for cooling said reduced iron pellets after receiving from the heat retaining and rolling portion.

Claim 7 (withdrawn): A production facility for producing reduced iron pellets according to claim 6, wherein said cooler is a cylindrical cooler and said heat retaining and rolling portion is apart form said cooler.

Claim 8 (withdrawn): A production facility for producing reduced iron pellets according to claim 7, wherein said heat retaining and rolling portion is formed by lining the inside of said cooler by a insulating material.

Claims 9-22 (canceled)

Claim 23 (previously presented): A method of producing reduced iron pellets according to claim 4, wherein the reducing material comprises a carbonaceous material powder.

Claim 24 (canceled)

Claim 25 (currently amended): A method of producing reduced iron pellets according to claim 4, ~~further comprising providing a rotary cylinder having a~~ wherein the heat retaining rolling portion is positioned to receive the reduced iron pellets from a direct reducing furnace provided with a rotary flat floor for the reducing of the raw material pellets.

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Claim 26 (currently amended): A method of producing reduced iron pellets according to claim [[24]] 4, ~~wherein the further cooling of the reduced iron pellets comprising providing a cooling furnace where the reduced iron pellets are cooled and spraying the reduced iron pellets sprayed~~ with water.

Claim 27 (previously presented): A method of producing reduced iron pellets according to claim 26, wherein the cooling furnace comprises a hopper.